

## **REMARKS/ARGUMENTS**

### **Status of Claims**

Claims 1 to 15 and 17 to 30 are currently pending in the application. Claims 16 and 31 have been cancelled.

### **Amendments to Claims**

Claim 1 has been amended to incorporate the subject matter of claim 16. Independent claims 20, 29 and 30 have been similarly amended.

Claim 17 has been amended to be dependent upon claim 1 instead of claim 16.

In the last limitation of claim 30, the expression “code means reporting” has been replaced with “code means for reporting”.

### **35 U.S.C. § 103 Rejections**

The law on obviousness under 35 U.S.C. 103 was recently addressed in *KSR Int'l v. Teleflex, Inc.*, No. 04-1350, slip op. at 14 (U.S., Apr. 30, 2007). Following this, examination guidelines were released by the USPTO on October 10, 2007 in regards to determining obviousness under 35 U.S.C. 103. According to these guidelines, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.* 383 U.S. 1,148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court are as follows:

- (1) Determining the scope and content of the prior art;
- (2) Ascertaining the differences between the claimed invention and the prior art; and
- (3) Resolving the level of ordinary skill in the pertinent art.

The Graham factors, including secondary considerations when present, are the controlling inquiries in any obviousness analysis. Once the findings of fact are articulated, Office personnel

must provide an explanation to support an obviousness rejection under 35 U.S.C. 103. According to KSR, for the Patent Office to properly combine references in support of an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have sought to combine the respective teachings of the applied references.

Applicant's analysis below demonstrates that the Examiner has failed to properly conform to the aforementioned guidelines for a finding of obviousness under 35 U.S.C. 103.

The Examiner has rejected claims 1 to 4, 6 to 11, 14 to 26 and 28 to 31 under 35 U.S.C. 103(a) as being unpatentable over Kogan et al. "Draft Technical Requirements on Outage Measurement Requirements for Packet Network" in view of Purpura (US Patent Application Publication 2003/0039261).

### **Claim 1**

#### **Ascertaining the differences between the claimed invention and the prior art**

The following is a discussion of how the cited references do not disclose all the elements of the rejected claim. While it may be considered that "the mere existence of differences between prior art and an invention does not establish the invention's non-obviousness", Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one skilled in the art (Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*, published in Federal Register Vol. 72, No. 195 October 10, 2007). As such, if elements from a claim are not disclosed by the combination of cited references and no valid reasoning is provided why the missing elements would be obvious, this may provide a strong basis for why a claim should not be rejected based on obviousness.

Claim 1 has been amended to incorporate the subject matter of claim 16. Therefore, Applicant will argue the rejection of claim 16 to illustrate that claim 1 patentably distinguishes over the combination of cited references.

In the Final Office Action dated July 7, 2009, the Examiner alleges that claim 16 is disclosed by the combination of Kogan et al. and Purpura. In particular, the Examiner alleges

that Kogan et al. discloses “information correlation means for correlating information from the service-affecting event computation means and the equipment event measurement means” in the form of the disclosure in Kogan et al. at “Page 7, lines 13 to 16, analyzing is to measure and collect data required in order to be able to report and store outage event”.

Applicant respectfully submits that what the particular limitation of the claim is reciting is more than just measuring and collecting data in order to report and store an outage event as the Examiner alleges is disclosed in Kogan et al.

The new limitation in amended claim 1 recites “correlating information from the service-affecting event computation means and the equipment event measurement means”. Applicant submits that the manner in which the limitation would be interpreted is that information gathered by the service-affecting event computation means and the equipment event measurement means are used together in a coordinated manner (correlating) to make a report regarding dependability parameters and metrics.

Applicant submits that what is disclosed in Kogan et al. is a general definition of Outage Measurement Requirements for Packet Networks that identifies Measurement Methodology (Section 5), Data Definition and Collection (Section 6) and Configuration and Management (Section 7), but does not describe the level of detail described in the present application and claimed in the claims. The particular portion of Kogan et al. (page 7, lines 13 to 16) identified by the Examiner is directed to four values used to define an outage object. Two thresholds, a defect threshold and a duration threshold are defined as well as two times, a start time and an end time, are defined. There is no disclosure or suggestion of correlation of any of these values.

Furthermore, Applicant submits that there would be no reason for correlating values of the type recited in the claims of the present application as there are two different types of information to be correlated, one of which Kogan et al. is not capable of obtaining. The Examiner concedes that Kogan et al. does not teach the complete limitation of “performance measurement means for measuring performance parameters between a first location and a second location in a communications network at sufficient frequency to detect service-affecting failures and time-of-occurrence” as recited in claim 1, and alleges that Purpura discloses the missing

limitation of the claim, namely “between a first location and a second location”. As Kogan et al. is directed to determining outage events within a device, and not measuring performance parameters between a first location and a second location in a communications network, Applicant submits that the intended use of Kogan et al. does not include having at least two types of information that may be correlated. Applicant further submits that even if the Examiner alleges that both the “measuring performance parameters between a first location and a second location in a communications network” and “monitoring network elements of the communications network for the occurrence of network element events” are disclosed by the combination of Kogan et al. and Purpura, which Applicant does not agree is the case, the Examiner has still not provided sufficient evidence that Kogan et al. discloses a capability of correlating information resulting from both monitoring and measuring.

Applicant submits that even if there is some similarity between the general teachings of Kogan et al. and the claims of the present application, there are many ways in which the disclosure of Kogan et al. may be implemented and it is improper to suggest that the manner recited in the present claims would be an obvious implementation without further evidence of prior art to that effect.

In addition, the service-affecting event computation means recited in claim 1 is for analyzing performance parameters measured by the performance measurement means. Applicant submits that such analyzing is potentially more in line with what is disclosed in Kogan et al. As amended claim 1 recites both analyzing of performance parameters and correlating of information from the service-affecting event computation means and the equipment event measurement means, there is a distinction made between analyzing of performance parameters and correlating of analyzed performance parameters output from the service-affecting event computation means and monitored occurrence of network element events output by the equipment measurement means.

With regard to the allegation that Purpura discloses “measuring between a first location and a second location”, and in view of the Examiner’s comments in the Advisory Action issued November 19, 2009 that “Purpura discloses the traffic control between two routers which can be traffic congestion control that has to be performed based on measurements and performance

data”, Applicant maintains that the Examiner has read too much into the statement at paragraph [0021] of Purpura. The Examiner assumes the meaning of what is intended in Purpura in the disclosure of “communications between the router 12 and the ground equipment generally compris(es)ing … traffic control” and reads into the reference an undisclosed measuring step. Purpura does not explicitly disclose measuring performance parameters between the router and ground equipment. Therefore, even if one were to consider the router and ground equipment as a first location and a second location, Purpura can not disclose the more general limitation of “measuring performance parameters between a first location and a second location in a communications network”, as recited in claim 1, because Purpura does not disclose any manner of “measuring performance parameters”. As the Examiner relies upon Purpura to disclose this limitation, and there is no evidence that Purpura does disclose this limitation, Applicant submits that not all of the references are disclosed by the combination of references.

The Examiner concedes that Kogan et al. does not specifically disclose “performance measurement means”, “service-affecting event computation means”, “equipment event measurement means”, “population calculator means” and “dependability metric calculator means”, but alleges that it would have been obvious to include the above means to the system disclosed by Kogan et al. to perform the functionality. For at least the reasons discussed above, Applicant submits that Kogan et al. does not disclose all the functionality that each of the “means” is configured to provide, and as such, Applicant submits that it would not be obvious to provide the means to implement a functionality that is not disclosed.

For at least the above reasons, Applicant submits that there are differences between what is disclosed in the combination of Kogan et al. and Purpura and what is disclosed in amended claim 1 resulting in a clear lack of at least one limitation in the combination of Kogan et al. and Purpura that is alleged to correspond to the limitations recited in amended claim 1. Furthermore, the Examiner has not provided a suitable reason why the missing limitations would be obvious to one skilled in the art. Therefore, Applicant submits that there are differences between the cited art and amended claim 1 of the present application that demonstrate that amended claim 1 of the present application patentably distinguishes over the combination of references.

Reason to Combine

Once the scope of the prior art is ascertained, the content of the prior art must be properly combined. An obviousness inquiry requires review of a number of factors, including the background knowledge possessed by a person having ordinary skill in the art, to determine whether there was an apparent reason to combine the elements of the prior art in the fashion claimed by the present invention. For the Patent Office to combine references in support of an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have combined the references *KSR Int'l v. Teleflex, Inc.*, No. 04-1350, slip op. at 14 (U.S., Apr. 30, 2007), Id. at 15. Even if the Patent Office is able to articulate and support a suggestion to combine the references, it is impermissible to pick and choose elements from the prior art while using the application as a template.

Applicant submits that there is no suggestion of a desirability of the claimed invention in any of the references that would serve as a reason for one skilled in the art to combine the collection of references identified by the Examiner. On the contrary, Applicant submits that there are several reasons that the references would not be considered suitable for combining, as will be discussed in detail below.

Kogan et al. does not disclose performance measurement means for measuring performance parameters between a first location and a second location, as conceded by the Examiner. Kogan et al. suggests “measurement of element internals on a basis of individual components such as a card, interface and CPU” (In the paragraph entitled “Accuracy” at the bottom of page 4). Such measurement may bring failure events to light. An example of a failure event is defined on page 7 as utilization of a CPU above a threshold of 95%. There is no suggestion or explicit disclosure in Kogan et al. of performing “performance measurements between a first location and a second location” to determined failure events. Loss of a link, for example, is indicated to be determined based on Loss of Signal in a router, not measurement of performance parameters between first and second locations (page 4, line 9 of Kogan et al.).

Kogan et al. discloses on page 6 second paragraph that “Each measurement agent operates independently. This differs from the peer-to-peer measurement method shown in

Figure 3, which requires two agents to run on separate elements with coordination elements". Therefore, Kogan et al. does not measure performance parameters between a first location and a second location, for example as described on page 8, lines 6-9 and page 12, lines 4-25 of the present application and as recited in claim 8 of the present application. Applicant submits that since Kogan et al. does not disclose measuring performance parameters between a first location and a second location, but that each measurement agent operates independently, Kogan et al. teaches away from measuring performance parameters between two locations. Therefore, even if Purpura discloses measuring performance parameters between two locations, which Applicant does not concede, Kogan et al. teaches away from measuring performance parameters between two locations. Applicant submits that this is a reason that one skilled in the art would not combine Purpura with Kogan et al. in the manner alleged by the Examiner.

In addition, as Purpura and Kogan et al. do not operate in the same manner regarding measuring of performance parameters, at least if Purpura operates as alleged by the Examiner, which Applicant does not concede is correct, Applicant submits that the proposed modification of the references resulting from the combining of the references suggested by the Examiner would change the principle of operation of either Purpura or Kogan et al., as the two reference operate in two different manners. Applicant submits that this is another reason that one skilled in the art would not combine Purpura with Kogan et al. in the manner alleged by the Examiner.

For at least the above reasons, Applicant submits that the Examiner has failed to provide a suitable reason for combining the references.

In view of the foregoing, Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness and that amended claim 1 of the present application is patentable over Kogan et al. and Purpura. Applicant respectfully requests the Examiner reconsider and withdraw the obviousness rejection of amended claim 1.

Claim 20 is an independent method claim that has been amended in a manner that it substantially corresponds to the subject matter of amended claim 1. Claim 20 patentably distinguishes over the combination of Kogan et al. and Purpura for at least the same reasons as discussed above in the response to the rejection of amended claim 1.

**Claims 2 to 11 and 14, 15, 17 to 19, 21 to 26 and 28**

Claims 2 to 11 and 14, 15 and 17 to 19, 21 to 26 and 28, either directly or indirectly, depend on amended claim 1 or amended claim 20. For at least the reasons discussed above with regard to amended claim 1, Applicant submits that claims 2 to 11, 14, 15 and 17 to 19, 21 to 26 and 28 patentably distinguish over Kogan et al. and Purpura.

**Claim 29**

Amended claim 29 is a system claim that recites a communications network capable of operating a dependability measurement system including a plurality of network elements having some of the functionality that is disclosed in amended claim 1, an operational service system having a remainder of the functionality that is disclosed in claim 1 and communication links that facilitate communication between the network elements and an operation service system. Claim 29 recites similar subject matter to amended claim 1. Applicant submits that amended claim 29 patentably distinguishes over Kogan et al. and Purpura for at least the same reasons as discussed above with regard to amended claim 1.

**Claim 30**

Claim 30 is a computer readable medium claim that recites a “computer readable medium having computer readable program code means embodied therein for execution by a computer processor for operating an operational service system of a dependability measurement system”. Applicant submits that the claim recites “code means for interfacing with network elements that measure point-to-point performance parameters along a service path between at least two locations to determine an occurrence of a network event and collect and store network event information” and “code means for interfacing with network elements that monitor individual network elements for an occurrence of a network element event and collect and store network element event information”. While it may be considered that Kogan et al. discloses the second limitation, which Applicant does not concede, Kogan et al. does not suggest or disclose the first limitation, as page 6, second paragraph of Kogan et al. specifically discloses that “Each measurement agent operates independently. This differs from the peer-to-peer measurement method shown in Figure 3, which requires two agents to run on separate elements with

coordination elements". The first limitation is contrary to the disclosure of operation of the system of Kogan et al. For reasons discussed above in the response to the rejection of amended claim 1, Applicant submits that Purpura is insufficient to remedy the missing elements of claim 30 and there is a lack of a suitable reason for combining Kogan et al. and Purpura.

**Claim 31**

Claim 31 has been cancelled rendering moot the rejection of claim 31.

**Claim 5**

The Examiner has rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Kogan et al. and Tanaka et al. (U.S. Patent Publication No. 20010053130).

Claim 5 is dependent on amended claim 1. Therefore, it is assumed that the rejection should be further in view of Purpura, as Purpura is utilized by the Examiner in the rejection of claim 1. However, as amended claim 1 patentably distinguishes over Kogan et al. and Purpura for at least the reasons provided above in the discussion of the rejection of amended claim 1, claim 5 should be allowable as well. Applicant respectfully submits that the combination of Kogan et al. and Purpura does not teach all the limitations recited in amended claim 1 as alleged by the Examiner. Without all the limitations of amended claim 1 being disclosed by Kogan et al., Applicant submits that there are differences between the cited art and the claims of the present application that demonstrate that claim 5 patentably distinguishes over the combination of references.

Applicant does not concede that Tanaka et al. discloses the additional limitations referred to by the Examiner.

Applicant does not concede that the Examiner has met the burden of identifying a reason why a person of ordinary skill in the art would have sought to combine the respective teachings of the applied references of Kogan et al., Purpura and Tanaka et al., as required by KSR.

For at least the above reasons, Applicant submits that claim 5 patentably distinguishes over Kogan et al., Purpura and Tanaka et al. and respectfully requests the Examiner reconsider and withdraw the obviousness rejection of claim 5.

In view of the foregoing, early favourable consideration of this application is earnestly solicited.

Respectfully submitted,

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